Department of
Environmental Protection
Bureau of Land & Water Quality June 2005
O&M Newsletter

A monthly newsletter for wastewater discharge licensees, treatment facility operators, and associated persons

2005 Wastewater Exams

The Spring Wastewater Exam was given in the usual locations on Wednesday, May 11, 2005. Results should be available in mid-June. Applications for the Fall exam, which will be given on November 9, 2005 must be postmarked on or before September 23, 2005 or hand delivered to the DEP Augusta Office on September 26, 2005.

Dick Darling

Another Standard Conditions Article!!

D. REPORTING REQUIREMENTS

4. Existing manufacturing, commercial, mining, and silvicultural dischargers. *In addition to the reporting requirements under this Section, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Department as soon as they know or have reason to believe:*

(a) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) One hundred micrograms per liter (100 ug/l);

(ii) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;

(iii) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

(b) That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(i) Five hundred micrograms per liter (500 ug/l);

(ii) One milligram per liter (1 mg/l) for antimony;

(iii) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Chapter 521 Section 4(g)(7); or

(iv) The level established by the Department in accordance with Chapter 523 Section 5(f).

Standard Condition D.4. is copied verbatim from *Chapter 523: Waste Discharge License Conditions* Section 3(a)(1) and (a)(2) and originates in 40 CFR 122.42. This license condition establishes limits of "toxic" pollutants, above which existing manufacturing, commercial, mining and silvicultural dischargers are required to report to the Department, discharges of pollutants that are known or that they have reason to believe have occurred or may occur. As per Chapter 520: Definitions for the Waste Discharge Permitting Program, toxic pollutants include but are not limited to, any pollutant listed as toxic under section 307 of the Clean Water Act, as well as "those substances or combination of substances, including disease causing agents, which after discharge…will…either alone or in combination with other substances already in the receiving waters or the discharge, cause death, disease, abnormalities, cancer, genetic mutations, physiological malfunctions, including malfunctions in reproduction, or physical deformations in such organism(s) or their offspring."

If your facility plans changes that may introduce new or more toxics, please contact the Department. Prevention of toxic discharges should be of primary concern and the specific notification levels should be seen as outside guideposts. If there is any doubt, err on the side of caution.

5. Publicly owned treatment works.

(a) All POTWs must provide adequate notice to the Department of the following:

(i) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA or Chapter 528 if it were directly discharging those pollutants.

(ii) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the permit.

(iii) For purposes of this paragraph, adequate notice shall include information on (A) the quality and quantity of effluent introduced into the POTW, and (B) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(b) When the effluent discharged by a POTW for a period of three consecutive months exceeds 80 percent of the permitted flow, the permittee shall submit to the Department a projection of loadings up to the time when the design capacity of the treatment facility will be reached, and a program for maintaining satisfactory treatment levels

consistent with approved water quality management plans.

Standard Condition D.5.(a) establishes reporting requirements related to "adequate notice" of "any new introduction of pollutants" or "any substantial change in the volume and character of pollutants" being introduced into a publicly owned treatment works. A "publicly owned treatment works" as defined in the Standard Conditions Revised July 1, 2002, means "any facility for the treatment of pollutants owned by the State or any political subdivision thereof, any municipality, district, quasi-municipal corporation or other public entity." Section 301 of the Clean Water Act sets effluent limitations and treatment requirements. Section 306 establishes categories of dischargers and requires the EPA Administrator to establish standards of performance for each of these categories. It is important for operators to be mindful of any industrial waste contribution and to make sure that it complies with the pre-treatment program, if applicable, and that it will not cause any operational or effluent problems. High strength, incompatible, or toxic flows are general concerns. Any questions should be directed to DEP's Pretreatment Coordinator.

Standard Condition D.5.(b) establishes the requirements for all POTWs to insure that they will be maintaining satisfactory treatment levels as flows approach the design capacity of the facility. After the amount discharged exceeds eighty percent (80%) of the permitted flow for three consecutive months, permittees are required to submit a projection of loadings to the facility and a plan for maintaining acceptable treatment levels. The primary message is that POTW's need to plan ahead for upgrades, given costs, and funding availability, etc. This license condition does not require an upgrade, but simply triggers a prudent review. The bottom line is that it is important for towns to plan ahead.

E. OTHER REQUIREMENTS

2. ***Spill prevention.*** *(applicable only to industrial sources) Within six months of the effective date of this permit, the permittee shall submit to the Department for review and approval, with or without conditions, a spill prevention plan. The plan shall delineate methods and measures to be taken to prevent and/or contain any spills of pulp, chemicals, oils or other contaminants and shall specify means of disposal and/or treatment to be used.*

Permittees who are already required to submit a Spill Prevention Control and Countermeasure (SPCC) Plan to the Department may also submit the SPCC Plan for review and approval in order to comply with this condition of their waste discharge permit. However, inasmuch as traditional SPCC Plans deal only with oil, facilities need to also consider any spills that are incompatible with the wastewater treatment facility or effluent limits either by nature or volume. Permittees should direct questions regarding spill prevention plans to their compliance inspector.

John Glowa

For Practice

1. Your department uses 60 pounds of ammonia per day to supplement nutrients in you system. You must keep a 12 day supply of ammonia on hand at any one time. It takes 7 days to get a new supply. How low can your inventory get before you have to reorder?
   a. 820 lbs.
   b. 1140 lbs.
   c. 1560 lbs.
   a. 2080 lbs.

2. How often should sludge be removed from the secondary clarifiers of an RBC treatment system?
   a. Continuously
   b. Several time per hour
   c. Several times per day
   d. Several times per week

3. The most important part of a Treatment Plant Safety Program is:
   a. Publishing weekly safety newsletters.
   b. Having monthly safety committee meetings.
   c. Providing the necessary personal protective equipment (PPE).
   d. Making sure every employee has a proper attitude about safety.

4. A composite test should be used for which of the following tests.
   a. Biochemical Oxygen Demand
   b. Dissolved Oxygen
   c. Temperature
   d. pH

Approved Training

June 23, 2005 in Mars Hill, ME – 9th Annual Lagoon Day – Sponsored by MRWA – 207-729-6569 – Approved for 4 hours

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Note:
JETCC stands for Joint Environmental Training Coordinating Committee
MRWA stands for Maine Rural Water Association
NHWPCA stand for New Hampshire Water Pollution Control Association

Answers to *For Practice:*

1. b 12 days X 60 lbs/day = 720 lbs
   7 days reorder time X 60 lbs/day = 420 pounds
   720 lbs + 420 lbs = 1140 lbs

2. c Sludge should be removed from the secondary clarifiers several times per day to prevent denitrification from causing rising sludge and effluent TSS violations.

3. d The most important part of a safety program is proper employee attitude. Every employee must be responsible for their own personal safety and the safety of other employees.

4. a A composite sample, one made up of several small samples taken over time, should be used for the Biochemical Oxygen Demand Test. All other tests mentioned are done on grab samples (pH) or in the treatment tanks as the process is working (dissolved oxygen and temperature).